Data Management for Ridge2000 and Margins

www.marine-geo.org



Goals

• Enable Ridge2000 and Margins communities to find data that have been collected (what, where, when, who)

Catalog

- Enable broader community access
 Data Repository, Access Services
- Preserve data for future use Metadata Standards, replicate storage
- Facilitate visualization and exploration of data (our tools and others)

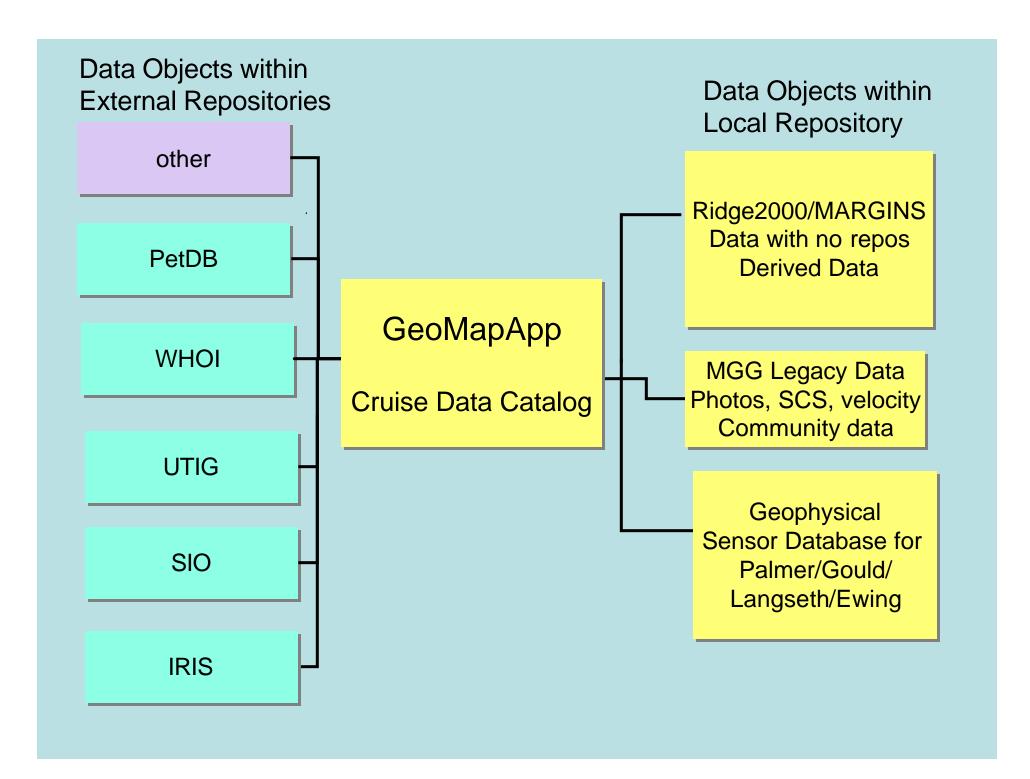
GMA, GoogleEarth, ArcGIS, Fledermaus

Requirements

 Handle large and DIVERSE datasets (seismic, sonar, geological, fluid, biological, rock, and sediment samples, temperature, photo imagery)
 *very different from existing DB

 Serve a DIVERSE user community – non-specialist and specialist access

What	Cruise report	Nav: ship/ Alvin/J2/ ABE etc	station and sample logs	Instru ments	Field Data	Analytic Data	Processed Data
Where	MGDS Data Portal			MGDS+ WHOI + IRIS +others	- eg PetDB, VentDB	MGDS +others	



Data Portal

- Functionality
- Download forms
- Browse data holdings
- Download data
- Links to external sites



	Tools	and	Services
--	-------	-----	----------

Search for Data:

GeoMapApp
Data Link

Create Maps & Grids

Web Services

Data for Google Earth

Education Modules

Antarctic Bathymetry
MARGINS
Ridge 2000
Ridge Bathymetry
Seismic Reflection

Data

Partners

PetDB
ODP Borehole
LDEO Core Repository
UTIG Processed Seis

What's New
Related Links
Contribute Data
Meetings & Reports
Admowledgements
Statistics & Holdings

Explore Further

Ridge 2000 Data Portal

This page provides access to cruise information and data collected during <u>Ridge 2000</u> funded projects. Learn more about this web site by browsing the <u>What's New page</u>, and reading other Project Related Documents.

You can download forms to document your field program.

Use <u>GeoMapApp</u> to explore the global topography database, create and download custom maps and grids as well as multibeam ping files. With GeoMapApp you can also view and explore trackline gravity and magnetics data, geochemical data from PetDB, seismicity, and seismic reflection profiles.



hoto by Karen Von Damm

Use Data Link to search for a cruise or data type of interest by keyword or geographic region.

Use Create Maps and Grids to generate a quick bathymetry map or grid for a region of interest.

Study Sites	Endeavor Segment (Juan de Fuca Ridge)	Eastern Lau Spreading Center (Lau Basin)	8°-11°N Segment (East Pacific Rise)
	Science Plan	Science Plan	Science Plan
	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)
	Create Map/Grid	Create Map/Grid	Create Map/Grid
	Deployed Instruments	Deployed Instruments	Deployed Instruments
	Vent List	Vent List	Vent List
	Related Links	Related Links	Related Links



Tools and Services	Data	Partn
Search for Data:	Antarctic Bathymetry	PetDB
GeoMapApp	MARGINS	ODP Boreho
Data Link	Ridge 2000	LDEO Core F
Create Maps & Grids	Ridge Bathymetry	UTIG Process
Veb Services	Seismic Reflection	
ata for Google Earth		

Metadata **Forms**

Ridge 2000 Data Portal

This page provides access to cruise information and data collected during Ridge 2000 funded projects. Learn more about this web site by browsing the What's New page, and reading other Project Related Documents.

Education Modules

You can download forms to ocument your field program.

Science Plan

LIST DATA SETS - by Expedition (R2K-fund - by Expedition (all) - by Data Type (R2K-fund - by Data Type (all) Create Map/Grid

Deployed Instruments

About Us Contact Us Terms of I

Vent List

Related Links

10 11 12

13 14 15 16 S-005

SeaBED

2003-06-22

10:46

Hoo CooMon	Ann to evalore the global tenegraph	y database, create and download custo	m mana	Marine field pro	grams
and grids as	well as multibeam ping files.With G ity and magnetics data, geochemic	eoMapApp you can also view and explor al data from PetDB, seismicity, and seis	e	be downloaded her	of the marine metadata form re as a single zipped packaç ion of the marine metadata fo
30	7	of interest by keyword or geographic re bathymetry map or grid for a region of in		•	coded using the free Aladdin amples are included in the fo
Study Sites	F 1 0 1	F	00 440N O		adata Forms: Des
, ,,,,,,,,	Endeavor Segment (Juan de Fuca Ridge)	Eastern Lau Spreading Center (Lau Basin)	8°-11°N Segme (East Pacific R	README.doc README.pdf Data_Policies	README file with notes a README file with notes a folder containing Ridge 20

Metadata Entry Forms

What's New

Related Links Contribute Data

Meetings & Reports Adknowledgements Statistics & Holdings

Advisory Committee

Explore Further

ers

The two packets of standardised electronic forms that can be downloaded from this page have been developed to facilitate the basic metadata and data reporting requirements of the NSF Ridge 2000 and MARGINS programs as defined in their published

Investigators funded by Ridge 2000 and MARGINS are asked to submit the completed metadata forms to us within sixty (60) days following the end of their land or marine field program. Additionally, we encourage all marine investigators - from any marine geoscience experiment - to also submit the completed marine forms to us.

Marine field programs	Land-based field programs
be downloaded here as a single zipped package.	The latest version of the land-based metadata forms can be downloaded here as a single zipped package. Read the description of the land metadata forms packet.

in Stufflt software for Windows, Macintosh, or Unix (Solaris/Linux).

CTD, bathymetry, photo

forms packages. The forms and documents included in this packet are listed

scription of packet

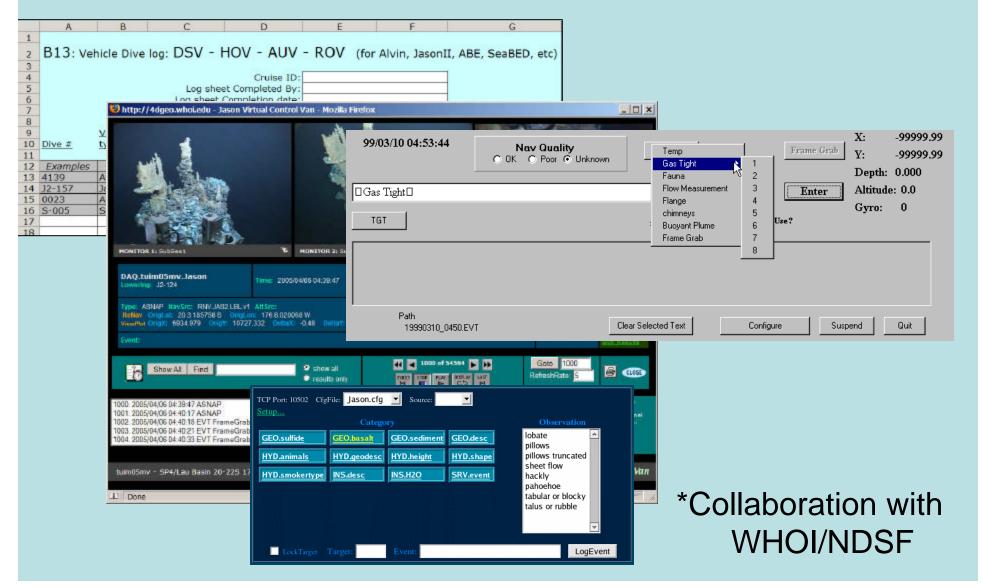
c R an SE	README.doc README.pdf Data_Policies Overview_forms log_sheets	README file v folder containin folder, describe	README file with notes and instructions, in WOF README file with notes and instructions, in PDF folder containing Ridge 2000 and MARGINS policifolder, described below folder, described below		
	E	F	G		
_	ROV (for Al	vin, JasonI	I, ABE, SeaBED, etc)	cted	
Da	End of d	ive me (UTC)	Data types collected	ure probes)	

	Science	ce Plan		Science Pl	an Overview_fo	rms folder, descri	bed below	
	LIST D	ATA SETS	S -	LIST DATA	SE la the Oversi	folder, descr	ibed below	_
	A	В	C	D	E	F	G	Ì
	B13: Vel	hicle Dive	Log she	HOV - AUV Cruise ID eet Completed By Completion date		r Alvin, Jasor	II, ABE, SeaBED, etc)	n cted
)	Dive #	Vehicle type	Start Date	of dive Time (UTC)	End Date	of dive Time (UTC)	Data types collected	ure probe
,	Examples		Examples	Examples	Examples	Examples	Examples	1
3	4139	Alvin	2003-06-18	14:38	2003-06-19	00:21	images, fluids, rocks	1
1	J2-157	JasonII	2005-02-24	19:03	2005-02-25	04:47	bio/fluid samples, video	
,	0023	ABE	2004-06-12	15:54	2004-06-12	23:20	bathymetry, magnetics	l

2003-06-22

19:56

Digital Event-logging and Metadata Extraction



Browse data holdings

	Tools and Services	Data	Partners	Explore Further
MARINE GEOSCIENCE DATA SYSTEM	Search for Data: GeoMapApp Data Link Create Maps & Grids Web Services Data for Google Earth	Antarctic Bathymetry MARGINS Ridge 2000 Ridge Bathymetry Seismic Reflection	PetDB ODP Borehole LDEO Core Repository UTIG Processed Seis	What's New Related Links Contribute Data Meetings & Reports Adxnowledgements Statistics & Holdings

Ridge 2000 Data Portal

This page provides access to cruise information and data collected during Ridge 2000 funded projects. Learn more about this web site by browsing the What's New page, and reading other Project Related Documents.

You can download forms to document your field program.

Use <u>GeoMapApp</u> to explore the global topography database, create and download custom maps and grids as well as multibeam ping files. With GeoMapApp you can also view and explore trackline gravity and magnetics data, geochemical data from PetDB, seismicity, and seismic reflection profiles.

Use Data Link to search for a cruise or data type of interest by keyword or geographic region.

Use Create Maps and Grids to generate a quick bathymetry map or grid for a region of interest.

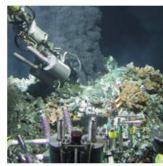


Photo by Karen Von Damm

Study Sites	Endeavor Segment (Juan de Fuca Ridge)	Eastern Lau Spreading Center (Lau Basin)	8°-11°N Segment (East Pacific Rise)
	Science Plan	Science Plan	Science Plan
	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)
	Create Map/Grid	Create Map/Grid	Create Map/Grid
	Deployed Instruments	Deployed Instruments	Deployed Instruments
	Vent List	Vent List	Vent List
	Related Links	Related Links	Related Links



Tools and Services	Data	Partners	Explore Further
Search for Data: GeoMapApp Data Link Create Maps & Grids Web Services Data for Google Earth Education Modules	Antarctic Bathymetry MARGINS Ridge 2000 Ridge Bathymetry Seismic Reflection	PetDB ODP Borehole LDEO Core Repository UTIG Processed Seis	What's New Related Links Contribute Data Meetings & Reports Adknowledgements Statistics & Holdings Advisory Committee

Data Link Result

(Click on Entry ID to view full record.)

Map View

	Wide view					
ENTRY	PLATFORM	CHIEF SCIENTIST	START DATE	PORT	END DATE	PORT
EPR:9N Tolstoy						
<u>AT11-07</u>	Atlantis	Schouten, Hans	2004-01-26	San Diego, California	2004-02-24	Puntarenas, Costa Rica
DANA06RR	Roger Revelle	Constable, Steven	2004-02-09	Puerto Caldera, Costa Rica	2004-03-09	Mazatlan, Mexico
AT11-09	Atlantis	VonDamm, Karen	2004-03-16	Puntarenas, Costa Rica	2004-04-02	Manzanillo, Mexico
AT11-10	Atlantis	Lutz, Richard	2004-04-07	Manzanillo, Mexico	2004-05-05	San Diego, California
AT11-20	Atlantis	Lilley, Marvin	2004-11-05	San Diego, California	2004-11-26	Manzanillo, Mexico
AT11-26	Atlantis	Vetriani, Costantino	2005-04-23	Manzanillo, Mexico	2005-05-15	Puntarenas, Costa Rica
EPR:9N MGDS						
<u>TN188</u>	Thomas G. Thompson	Haymon, Rachel	2005-11-23	San Diego, California	2005-12-01	Academy Bay, Galapagos Islands
EPR 9N Ferrini						
KN182-13	Knorr	Forsyth, Donald	2006-03-28	Academy Bay, Galapagos Islands	2006-05-03	San Diego, California



(Click on Entry ID to view full record.)

Atlantis

Atlantis

Tools and Services	Data	Partners	Explore Further
Search for Data:	Antarctic Bathymetry	PetDB	What's New
<u>GeoMapApp</u>	MARGINS	ODP Borehole	Related Links
Data Link	Ridge 2000	LDEO Core Repository	Contribute Data
Create Maps & Grids	Ridge Bathymetry	UTIG Processed Seis	Meetings & Reports
Web Services	Seismic Reflection		Adknowledgements
Data for Google Earth			Statistics & Holdings
Education Modules			Advisory Committee

San Diego,

Manzanillo,

Mexico

Islands

California

2004-11-26

2005-05-15

2006-05-03

2004-11-05

2005-04-23

Data Link Result

AT11-20

AT11-26

EPR 9N Ferrini

Map View **ENTRY** PLATFORM CHIEF SCIENTIST START DATE PORT END DATE EPR:9N Tolstoy San Diego, AT11-07 Atlantis Schouten, Hans 2004-01-26 2004-02-24 California Puerto Roger DANA06RR Constable, Steven 2004-02-09 Caldera, 2004-03-09 Revelle Costa Rica Puntarenas. AT11-09 Atlantis VonDamm, Karen 2004-03-16 2004-04-02 Costa Rica Manzanillo, 2004-04-07 2004-05-05 AT11-10 Atlantis Lutz. Richard Mexico

EPR:9N MGDS San Diego, Thomas G. TN188 Haymon, Rachel 2005-11-23 2005-12-01 Thompson California

Academy Bay, KN182-13 2006-03-28 Knorr Forsyth, Donald Galapagos

Lilley, Marvin

Vetriani,

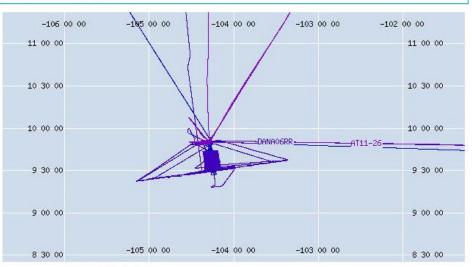
Costantino

Data Link: Map View

Click Map:

C Zoom In

Factor: 2



Display Layers: ✓ Navigation ✓ Stations C Re-Center Global DEM ✓ Lat/Lon Grid C Zoom Out Coastlines

*(under

development)

Scale: 35 mi Mode:

Browse ▼

Powered by and PostGIS

Academy Bay, Galapagos Islands

> San Diego, California



Data	Partners
Antarctic Bathymetry	PetDB
MARGINS	ODP Borehole
Ridge 2000	LDEO Core Repositor
Ridge Bathymetry	UTIG Processed Seis
Seismic Reflection	
	Antarctic Bathymetry MARGINS Ridge 2000 Ridge Bathymetry

Data Link Result

(Click on Entry ID to view full record.)

Map View

ENTRY	PLATFORM	CHIEF SCIENTIST	START DATE	PORT	END DATE
EPR:9N Tolsto	ογ				
AT11-07	Atlantis	Schouten, Hans	2004-01-26	San Diego, California	2004-02-24
DANA06RR	Roger Revelle	Constable, Steven	2004-02-09	Puerto Caldera, Costa Rica	2004-03-09
<u>AT11-09</u>	Atlantis	VonDamm, Karen	2004-03-16	Puntarenas, Costa Rica	2004-04-02
AT11-10	Atlantis	Lutz, Richard	2004-04-07	Manzanillo, Mexico	2004-05-05
AT11-20	Atlantis	Lilley, Marvin	2004-11-05	San Diego, California	2004-11-26
<u>AT11-26</u>	Atlantis	Vetriani, Costantino	2005-04-23	Manzanillo, Mexico	2005-05-15
EPR:9N MGD	<u>S</u>				
<u>TN188</u>	Thomas G. Thompson	Haymon, Rachel	2005-11-23	San Diego, California	2005-12-01
EPR 9N Ferri	<u>ni</u>				
KN182-13	Knorr	Forsyth, Donald	2006-03-28	Academy Bay, Galapagos Islands	2006-05-03

Explore Further

Data Link Entry: AT11-20

Click on active links to access data or information.

Platform: Atlantis
Designation: AGOR-25

Operator: WHOI:Marine Operations

Project: Biocomplexity: Smart Sensors for In Situ Monitoring of Hydrothermal Vent Systems

Project: Establishing a Role for Fe and S Microbial Metabolism in Ocean Crust Weathering (Web site)

Project: Time-Series Larval Studies in the Deep Sea (Web aite)

Project: The Interaction of Microbial Biofilms and Fluid Chemistry on Larval Settlement (Web site)

Chief_Scientist : Lilley, Marvin
Scientist : Bach, Wolfgang (NSF OCE02-41791)
Scientist : Beaulieu, Stace (WHOI DOE!)
Scientist : Booksh, Karl (NSF OCE01-19999)
Scientist : Holloway, John (NSF OCE01-19999)
Scientist : McCollom, Thomas
Scientist : Mullineaux, Lauren (WHOI DOE!)

Scientist : Rouxel, Olivier
Student: Graduate : Banning, Erin
Student: Graduate : Canovas, Peter
Student: Graduate : Poehls, Diane
Student: Graduate : Rogers, Dan
Student: Graduate : Santelli, Cara

Port: 2004-11-05 San Diego, California Port: 2004-11-26 Manzanillo, Mexico

WESN: [not available]

Survey Locations and Navigation:

Dive Class	Platform	
HOV	Alvin	

Station Type	Device Type	Investigator or Contact
Bottom	Incubation_Chamber	Edwards_Katrina
Bottom:Deployed	Current_Meter	Mullineaux_Lauren
Bottom:Deployed	Sediment_Trap	Mullineaux_Lauren

Field Data Inventory:

Dive Type	Line Platform Type	Station Type	Data Type	Device Type	Device Info	Investigator or Contact
HOV(Alvin)			Bathymetry	Sonar Scanning	Imagenex:881	Lilley_Marvin
HOV(Alvin)		7-15	Photograph:Video:FG	Camera	WHO!-EramaGrabbar	Lilley Marvin

Direct links to other data resources

Survey Locations and Navigation:

Dive Class	Platform
HOV	Alvin

Station Type	Device Type	Investigator or Contact
Bottom	Incubation_Chamber	Edwards_Katrina
Bottom:Deployed	Current_Meter	Mullineaux_Lauren
Bottom:Deployed	Sediment_Trap	Mullineaux_Lauren

Field Data Inventory:

Dive Type	Line Platform Type	Station Type	Data Type	Device Type
HOV(Alvin)			Bathymetry	Sonar Scanning
HOV(Alvin)			Photograph:Video:FG	Camera Video
HOV(Alvin)			Sample:Biology	
HOV(Alvin)			Sample:Fluid	
HOV(Alvin)			Sample:Rock	

Derived Data Products:

Data Type	Device Type	Data Class	Investigator or Contact	Feature ID
Bathymetry	Sonar Scanning	grid	Ferrini_Vicki	
Bathymetry	Sonar Scanning	image	Ferrini_Vicki	

Attachments:





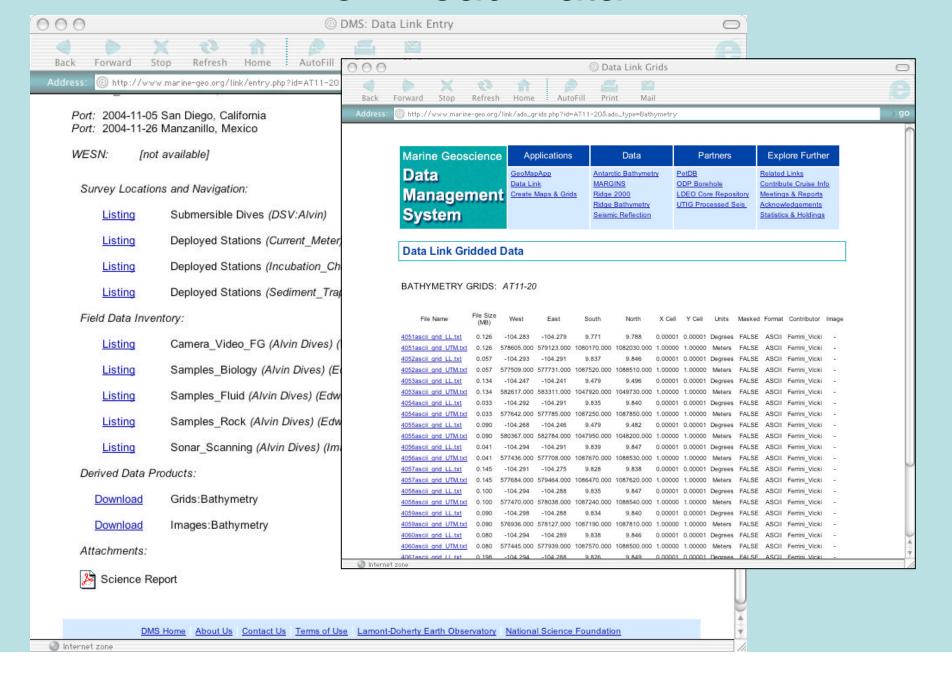
ource 2/ SubSess AQ Time: 2004/11/11 15:30:31 DAO.ActiveDive.Alvin ype: ASNAP NavAttSrc: PWHANA Pitch: 2.822 Roll: 0.349

at: 9 50.061300 N on: 104 17.429040 W X: +4709.990 Y: +77529.881 DopAit: -0.012

graben major

to browse, click on TimeBar or use Nav Buttons \$96 8/23/21 150004 PE SERVICES SERVICES

Download Data



Dynamically Generated Lists to Aid Ongoing Research Programs



Tools and Services	Data	Partners	Explore Further
Search for Data:	Antarctic Bathymetry	PetDB	What's New
<u>GeoMapApp</u>	MARGINS	ODP Borehole	Related Links
Data Link	Ridge 2000	LDEO Core Repository	Contribute Data
Create Maps & Grids	Ridge Bathymetry	UTIG Processed Seis	Meetings & Reports
Web Services	Seismic Reflection		Adknowledgements
Data for Google Earth			Statistics & Holdings
Education Modules			Advisory Committee

Ridge 2000 Data Portal

This page provides access to cruise information and data collected during Ridge 2000 funded projects. Learn more about this web site by browsing the What's New page, and reading other Project Related Documents.

You can download forms to document your field program.

Use <u>GeoMapApp</u> to explore the global topography database, create and download custom maps and grids as well as multibeam ping files.With GeoMapApp you can also view and explore trackline gravity and magnetics data, geochemical data from PetDB, seismicity, and seismic reflection profiles.

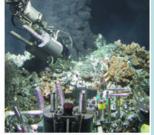


Photo by Karen Von Damm

Use Data Link to search for a cruise or data type of interest by keyword or geographic region.

Use Create Maps and Grids to generate a quick bathymetry map or grid for a region of interest.

Study Sites	Endeavor Segment (Juan de Fuca Ridge)	Eastern Lau Spreading Center (Lau Basin)	8°-11°N Segment (East Pacific Rise)
	Science Plan	Science Plan	Science Plan
	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)	LIST DATA SETS by Expedition (R2K-funded) - by Expedition (all) - by Data Type (R2K-funded) - by Data Type (all)
	Create Map/Grid	Create Map/Grid	Create Map/Grid
	Deployed Instruments	Deployed Instruments	Deployed Instruments
	Vent List	Vent List	Vent List
	Related Links	Related Links	Related Links



Tools and Services	Data	Partners	Explore Further		
Search for Data: GeoManApp Data Link Create Maps & Grids Web Services	Antarotic Bethymetry MARGINS Ridge 2000 Ridge Bathymetry Seizmic Reflection	PetDB ODP Borehole LDEO Care Repository UTIG Processed Sals	Whats New Related Links Contribute Data Meetings & Reports Admowledgements		
Data for Google Earth Education Modules			Statistics & Holdings Advisory Committee		

Deployed instruments

Data Link Station Data

We strive to ensure that the information presented on these pages is as accurate as has been provided to us information is not intended for navigation purposes.

Search for Deployed Instruments by year

Download this Table

Instruments Currently On Bottom









STATIONS

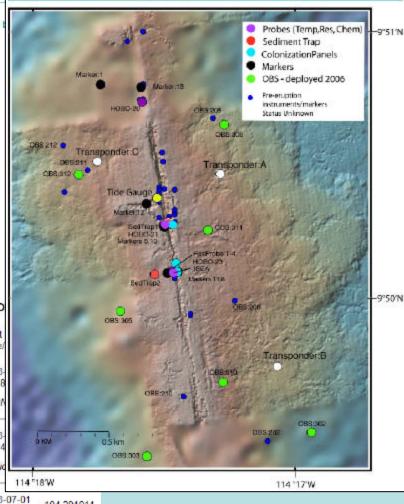
(Click on active links to access data or additional information): 8°-11°N Segment (East Pacific Rise): CURRENTLY O

Entry	Dive Type/ID	Line Type/ID	Station Activity	Device Type/ID	Target	Investigator	Start Date/
AT15-06	Alvin: 4207		Bottom: Deployed	Probe:Temperature: HOBO-23	EPR:9N:lo	VonDamm_Karen	2006- 20:48
				Location description = le	o. Location method	= transponder. Grid Origin	= 091
AT15-06	Alvin: 4207		Bottom: Deployed	Probe:Resistivity: T-44	EPR:9N:lo	Lilley_Marvin	2006- 20:44
				Will be recovered in No	vember 2006. Loca	ation description = lo vent. I	Locatio
AT15-06	Alvin: 4207		Bottom: Deployed	Probe:Chemistry:ISEA: ISEA	EPR:9N	Luther_George	2006- 18:28:

-104.291011 Deployed ISEA Luther George

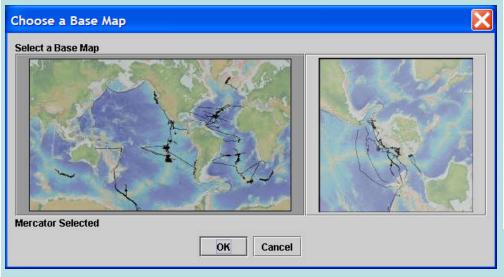
Location description = Mkr 8. Location method = transponder. Grid Origin = 09N08 104W20.

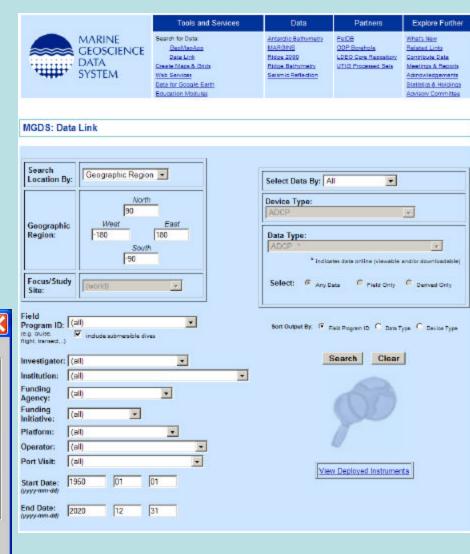
Ridge 2000 EPR ISS Currently Deployed Instruments: Blow-up of 9°50'N area



Search Capabilities

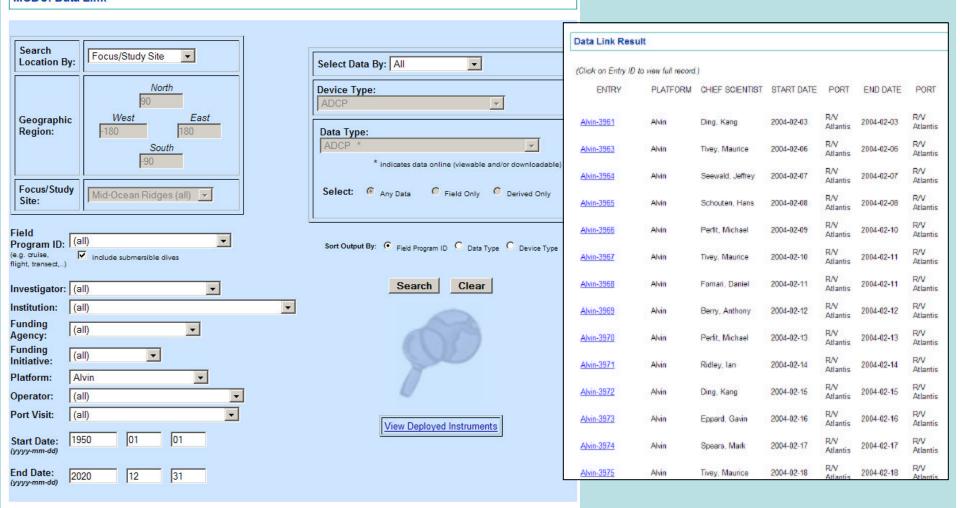
- DataLink
 - Text-based
- GeoMapApp
 - Map-based







MGDS: Data Link





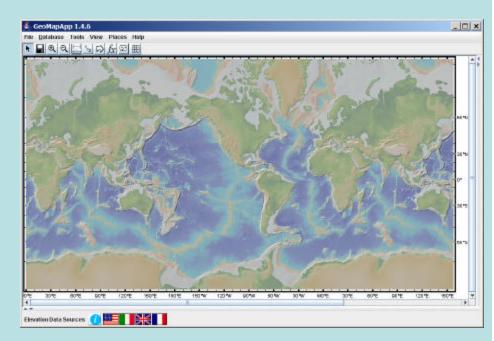
Map-based tool for exploring marine geoscience data

Dynamically generated bathymetry grids and

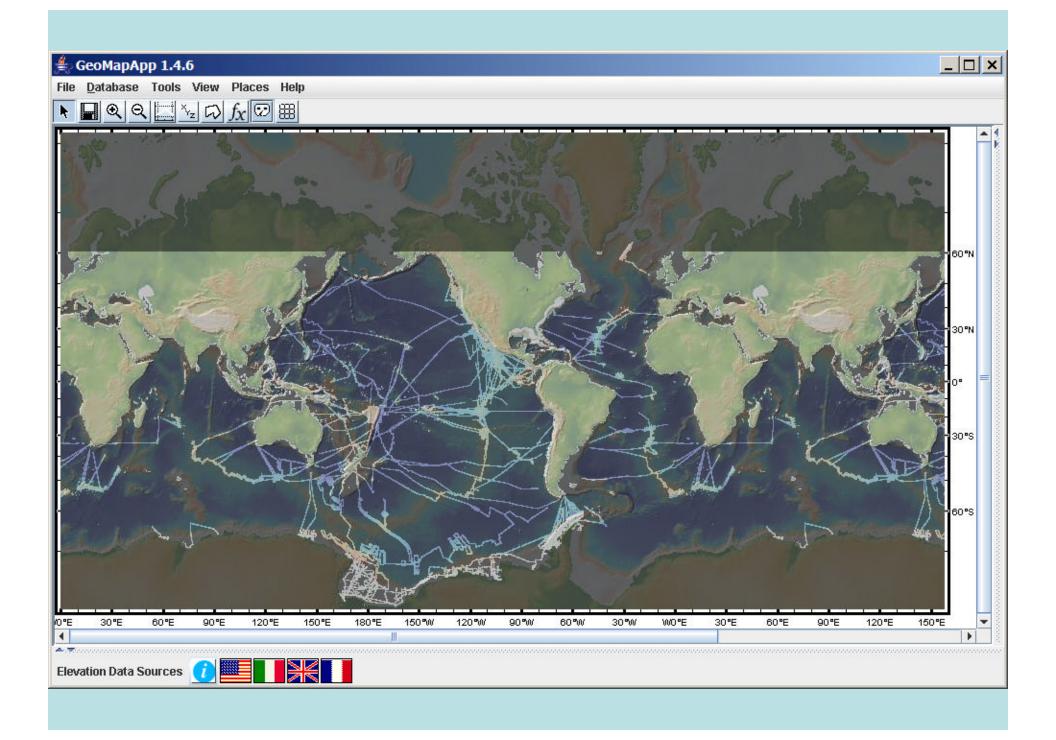
maps

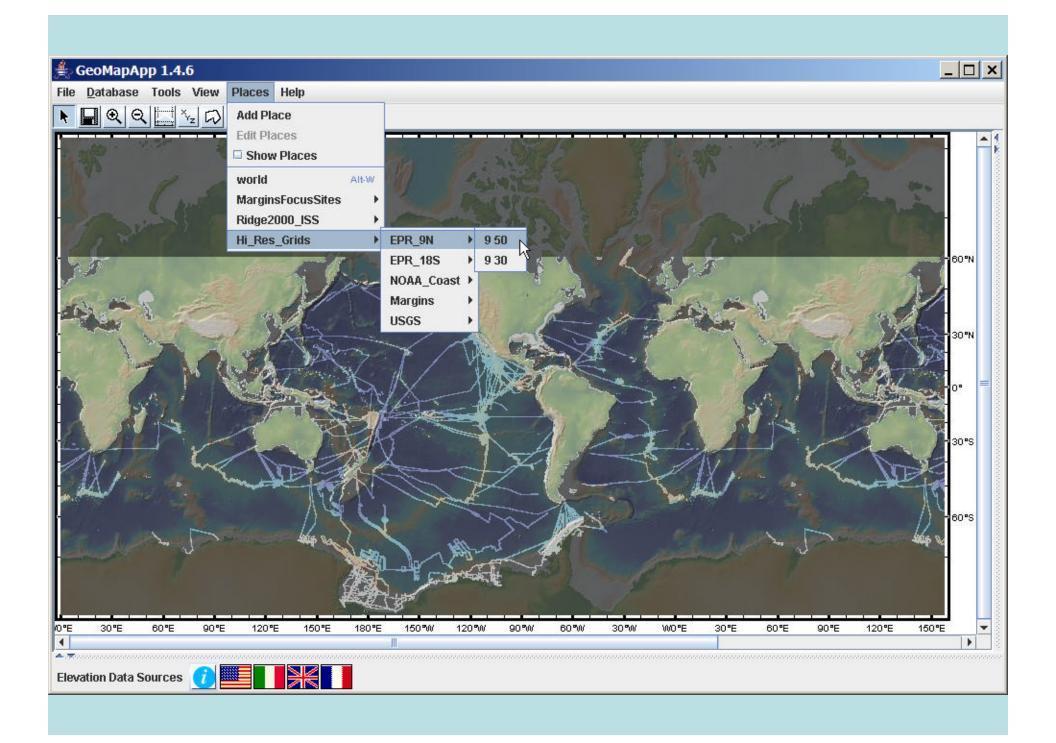
PetDB

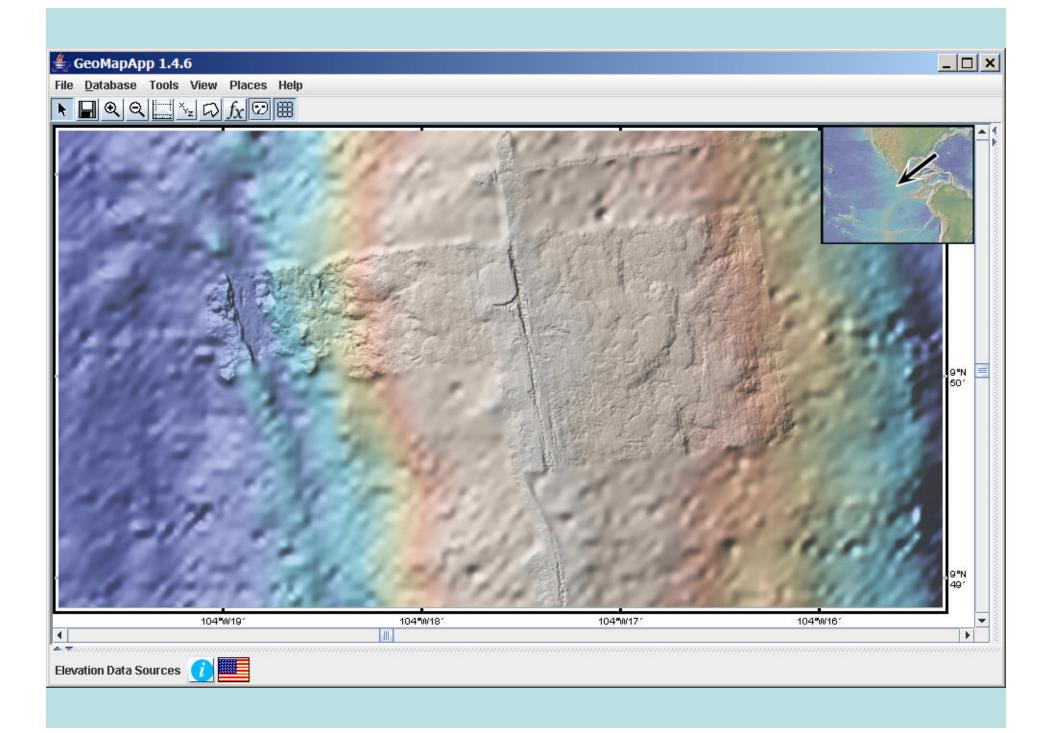
- Seismicity
- Bottom photos
- Import your own data

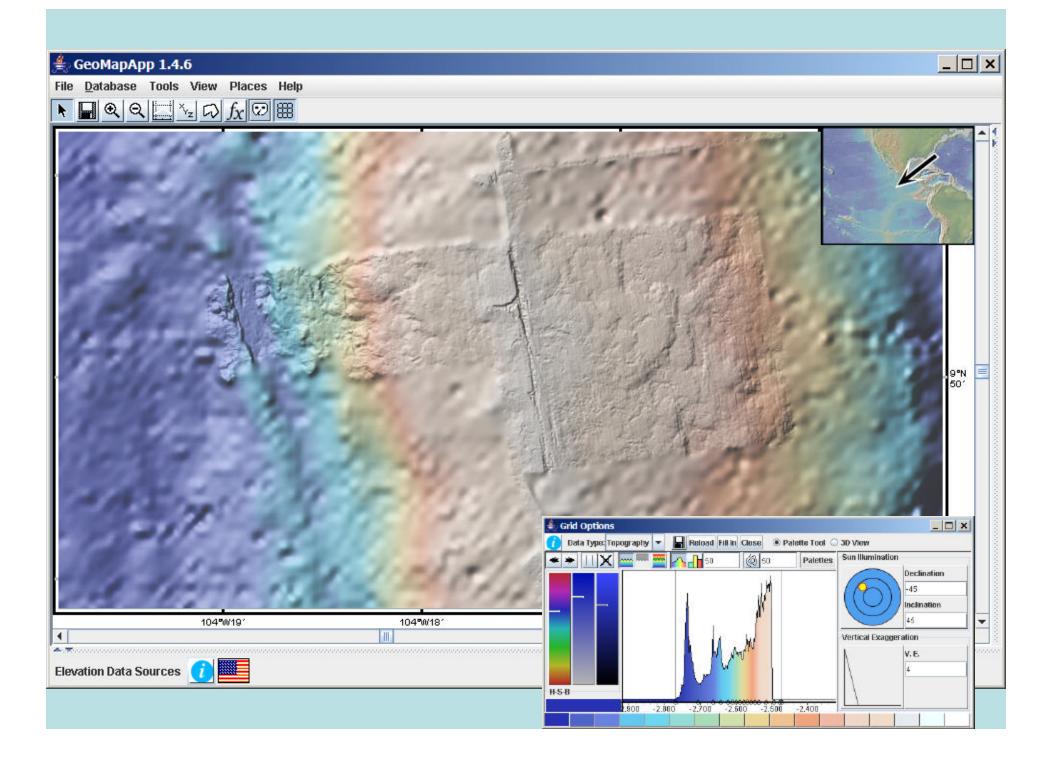


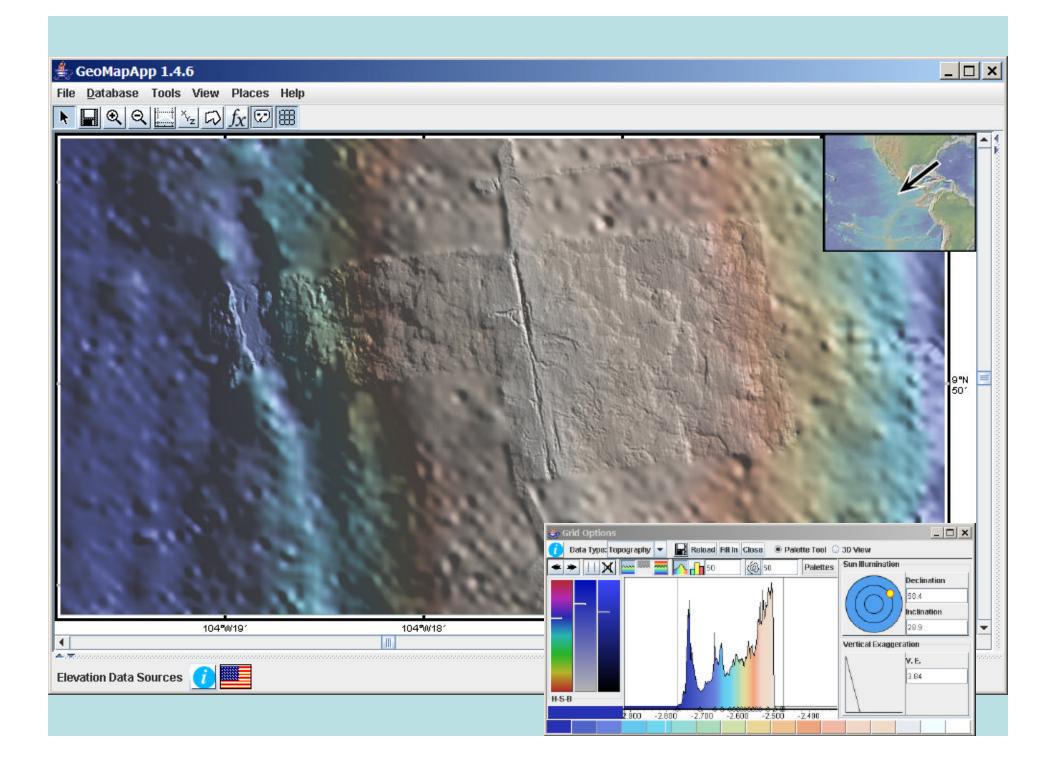
www.geomapapp.org



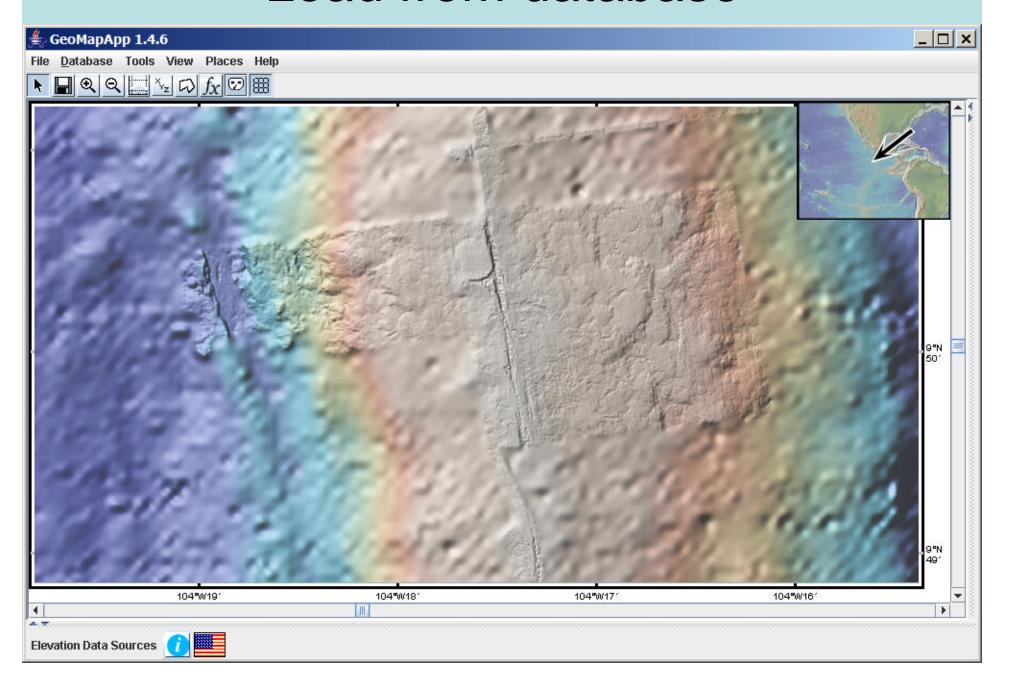




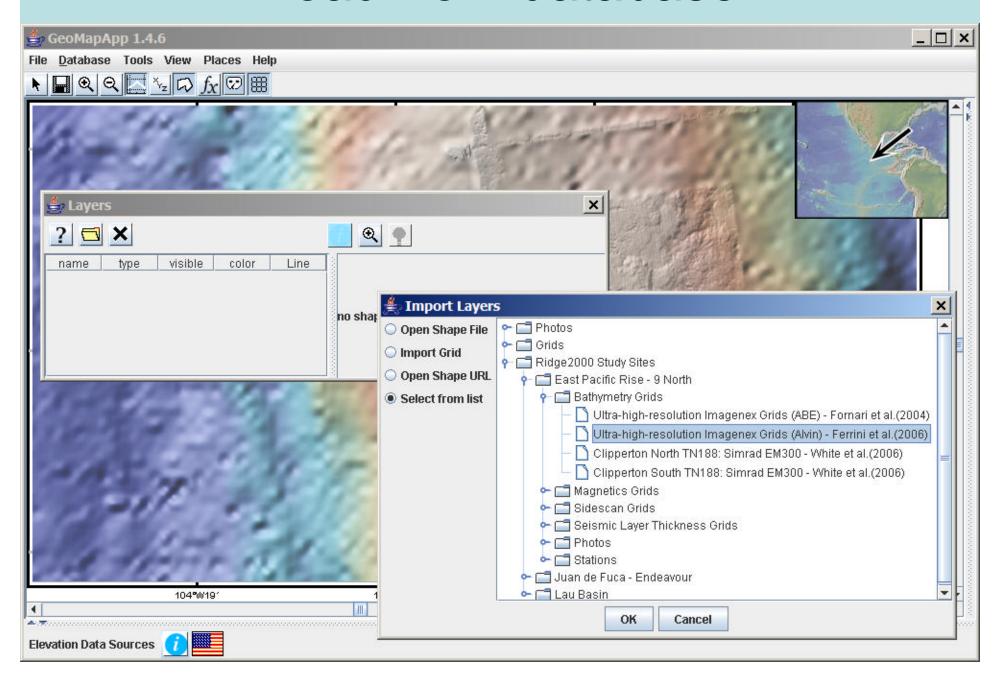




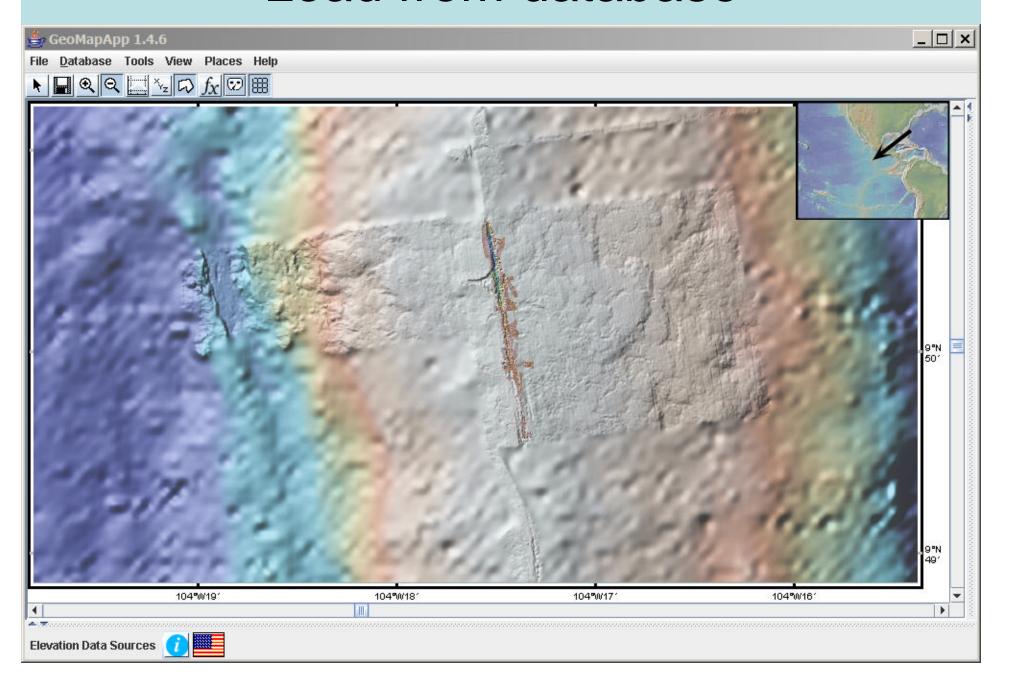
Load from database



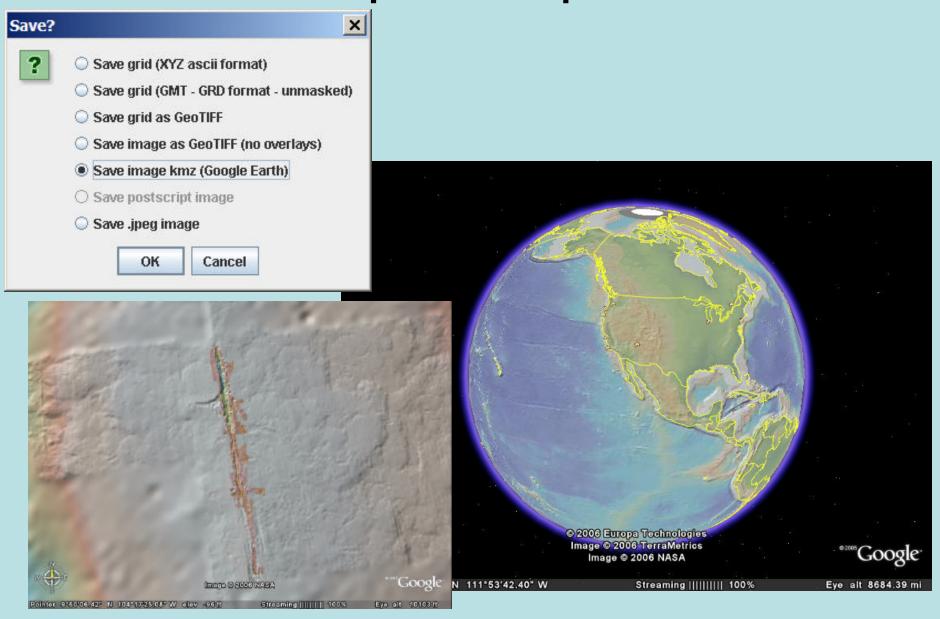
Load from database



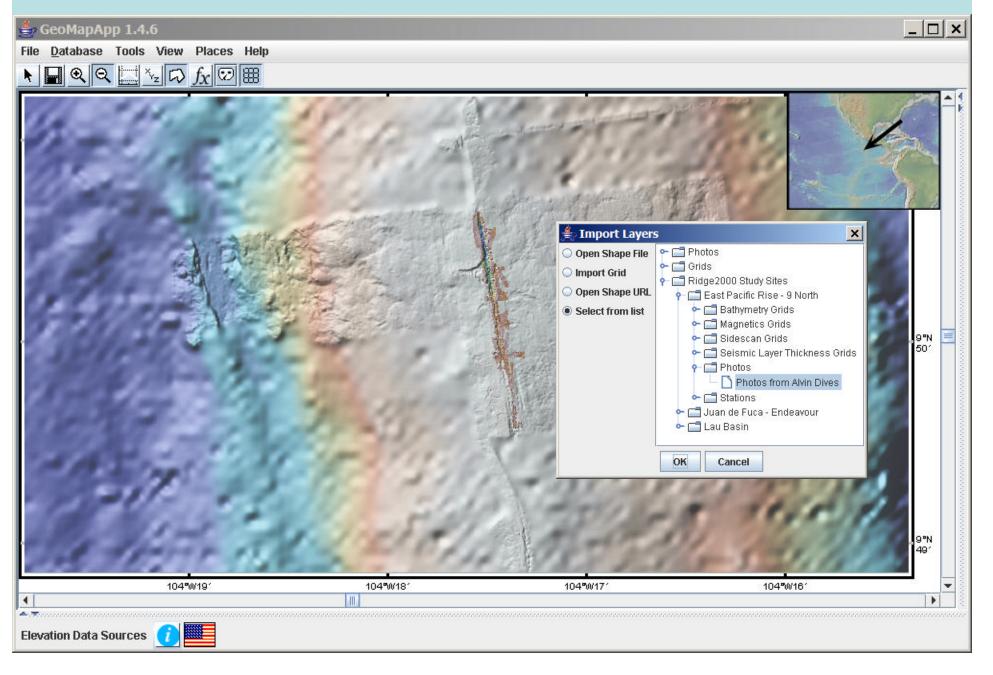
Load from database

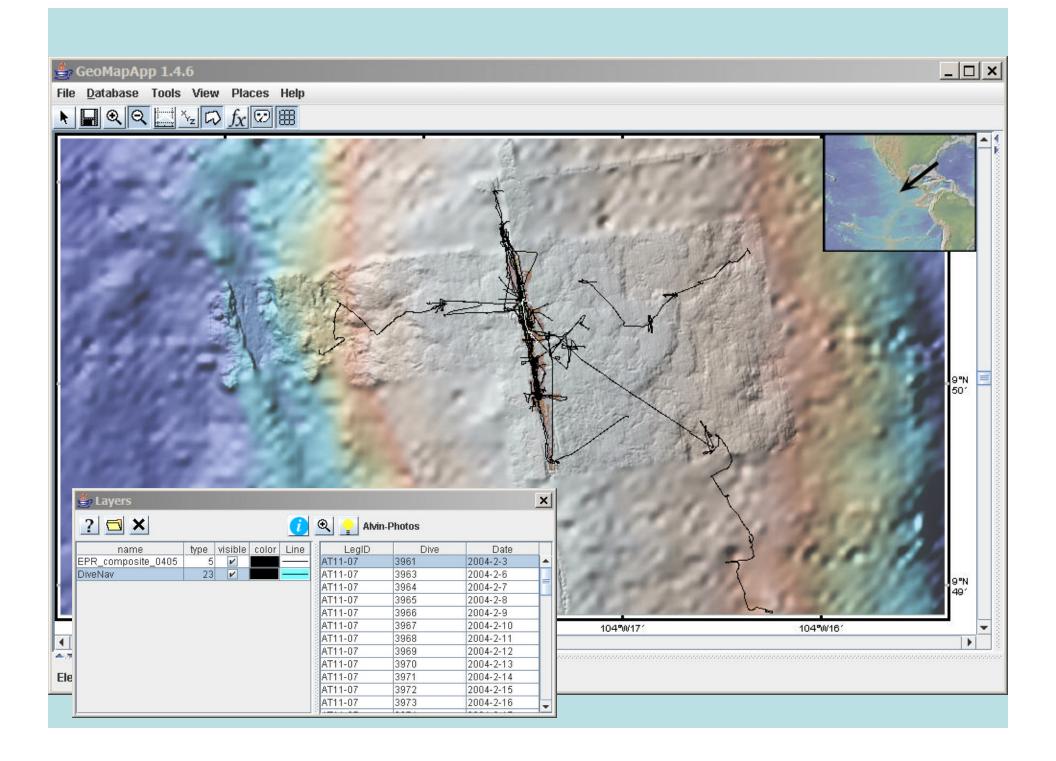


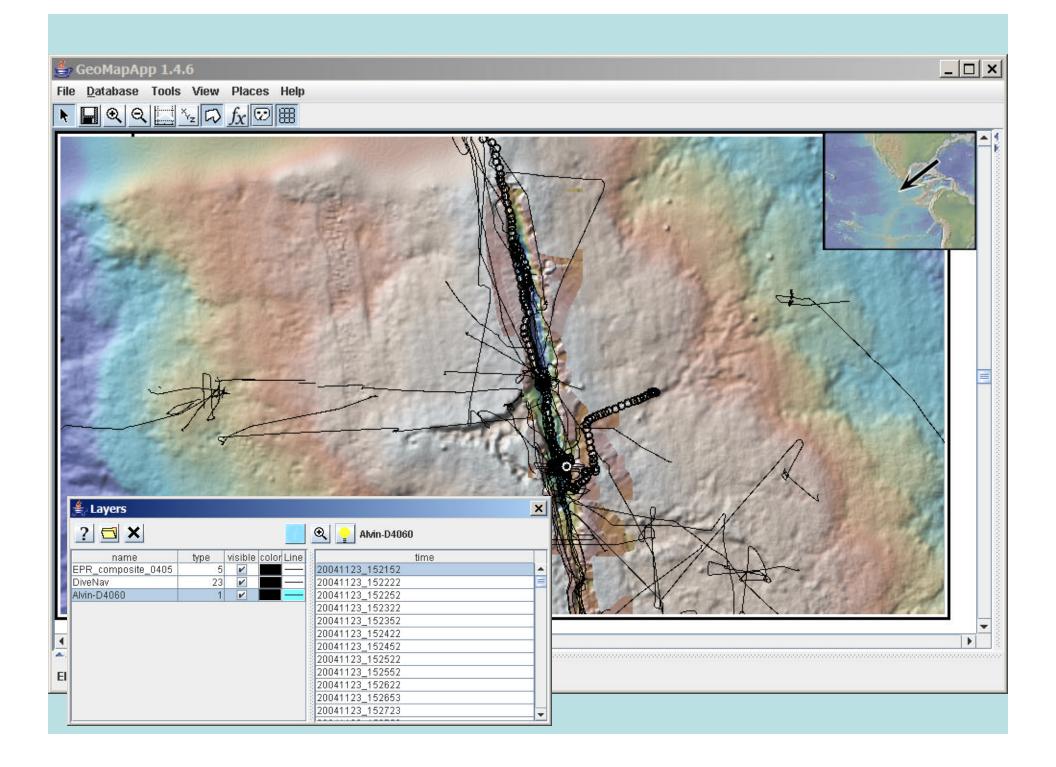
Grid Export Capabilities

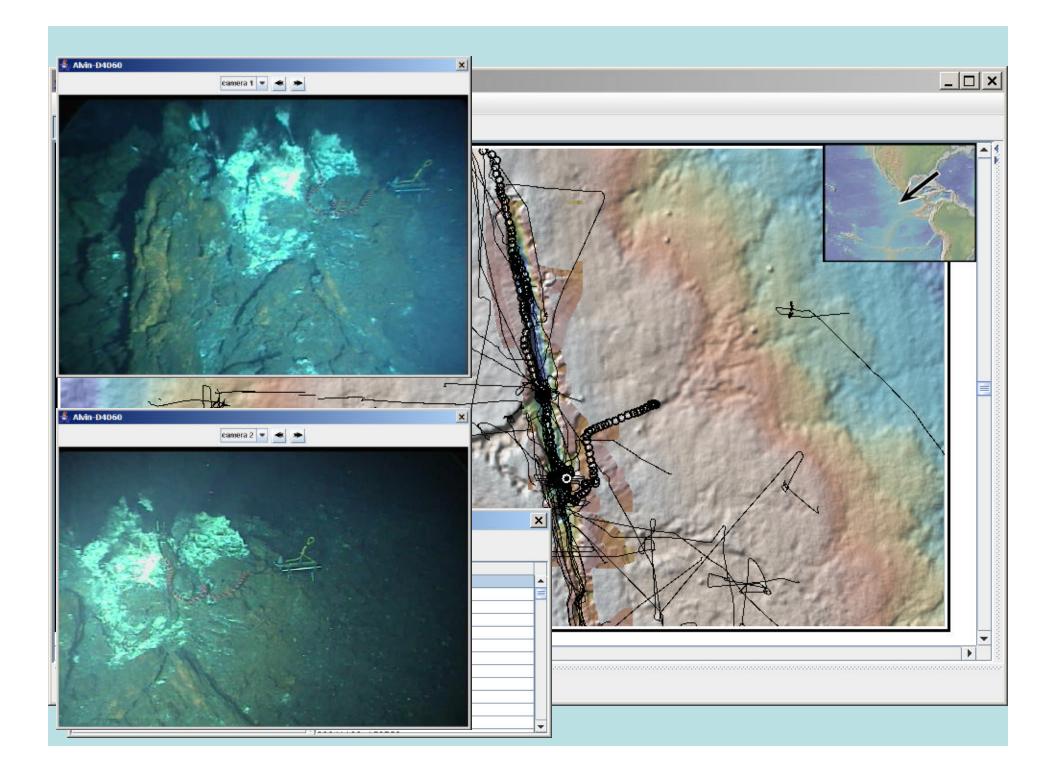


Load from Database

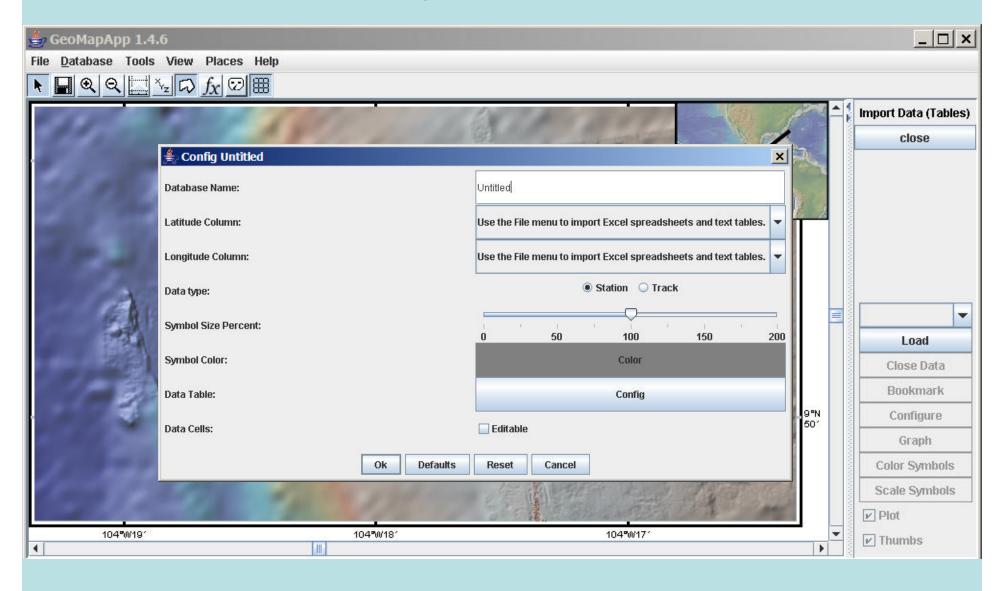




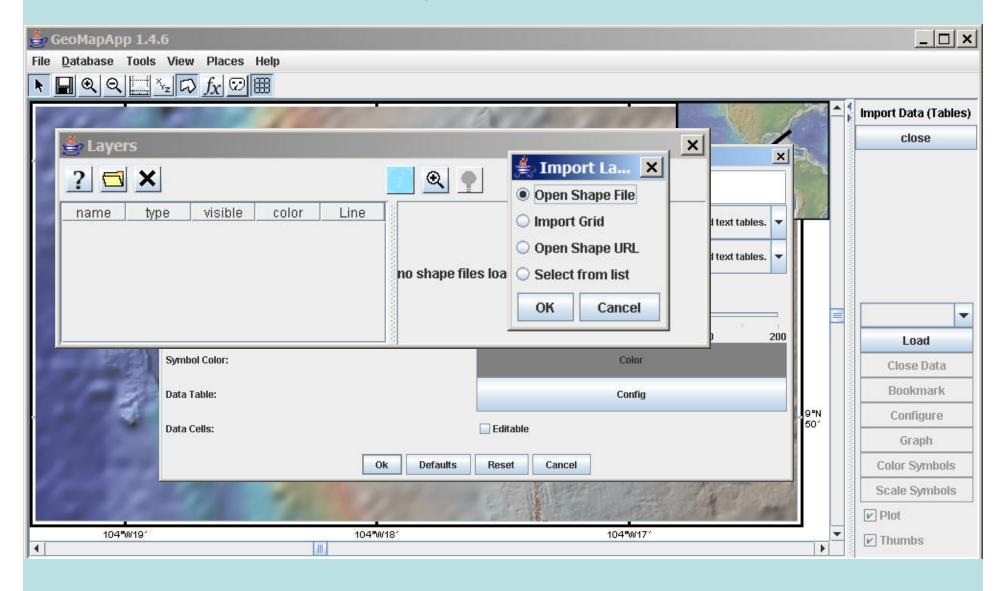




Load Custom Data



Load Custom Data



www.marine-geo.org

Questions or comments concerning the MGDS or any of our tools or data sets:

info@marine-geo.org

Questions or comments specifically concerning the Java application GeoMapApp:

info@geomapapp.org